

THE PROPER PLACEMENTS OF THE NEARCTIC SOFT SCALE
SPECIES ASSIGNED TO THE GENUS *LECANIUM*
BURMEISTER (HOMOPTERA: COCCIDAE)

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Abstract.—The genus *Lecanium* Burmeister 1835, is a junior synonym of *Coccus* Linnaeus 1758. Therefore, fourteen species of soft scale insects in the Nearctic Region previously assigned to *Lecanium* are placed here in the genera *Eulecanium*, *Mesolecanium*, *Parthenolecanium*, and *Sphaerolecanium*. Three new combinations are presented.

Although the genus *Lecanium* Burmeister, 1835: 69 (Type-species: *Coccus hesperidum* Linnaeus, 1758: 455, by subsequent designation by Cockerell, 1893: 49) is an objective junior synonym of *Coccus* Linnaeus, 1758: 455 (Fernald, 1903: 167), the name has been used in North America for certain taxa since its acceptance by Sanders (1909: 430) (Steinweden, 1929: 225; Richards, 1958: 305; Phillips, 1965: 231; Williams and Kosztarab, 1972: 69). Elsewhere, *Lecanium* was similarly used until Borchsenius (1957: 384) accepted the suppression of the name and reassigned certain included taxa to other genera. Since then, other workers have followed Borchsenius. In order to conform with current concepts, the current names are presented here for the Nearctic species which now belong in the genera *Eulecanium* Cockerell, *Mesolecanium* Cockerell, *Parthenolecanium* Sulc, and *Sphaerolecanium* Sulc.

Eulecanium Cockerell

1893, Am. Entomol. Soc. Trans. 20: 54. Type-species: *Coccus tiliae* Linnaeus, 1758, by original designation.

Eulecanium caryae (Fitch): King, 1902, Can. Entomol. 34: 160.

Lecanium caryae Fitch, 1857, Trans. N.Y. St. Agric. Soc. 16(1856): 443.

Eulecanium cerasorum (Cockerell): Fernald, 1903, Mass. Agric. Exp. Stn. Spec. Bull. 88, p. 184.

Lecanium cerasorum Cockerell, 1900, Psyche (Camb.) 9: 71.

Eulecanium excrescens (Ferris): Lindinger, 1933, Entomol. Anz. Jahrg. 13(11): 159.

Lecanium excrescens Ferris, 1920, Stanford Univ. Publ. Univ. Ser. Biol. Sci. 1(1): 37.

Eulecanium kunoense (Kuwana): Lindinger, 1933, Entomol. Anz. Jahrg. 13(11): 159.

Lecanium kunoensis Kuwana, 1907, Bull. Agric. Exp. Stn. Japan, 1: 191.

Eulecanium tiliae (Linnaeus): Cockerell, 1901, Entomol. 34: 92.

Coccus tiliae Linnaeus, 1758, Syst. Nat. (Ed. 10) 1: 456.

Lecanium coryli (Linnaeus): Marchal, 1908, Ann. Soc. Entomol. Fr. 77: 295.

Lecanium tiliae: Sulc, 1932, Acta Soc. Sci. Nat. Morav. 7(5): 87; Richards, 1958, Can. Entomol. 90(5): 310.

Mesolecanium Cockerell

1902, Ann. Mag. Nat. Hist. (ser. 7) 9: 451. Type-species: *Lecanium nocturnum* Cockerell and Parrott, 1899, by original designation.

Mesolecanium nigrofasciatum (Pergande), NEW COMBINATION

Lecanium nigrofasciatum Pergande, 1898, U.S. Dep. Agric. Div. Entomol. Bull. (n.s.) 18: 26.

Parthenolecanium Sulc

1908, Entomol. Mon. Mag. 44: 36. Type-species: (*Lecanium coryli* Sulc, 1908, *nec* Linnaeus, 1758) = *Lecanium corni* Bouché, 1844, by original designation.

Parthenolecanium cerasifex (Fitch): Boratynski and Davies, 1971, Biol. J. Linn. Soc. 3(1): 58 (*P. cerasifera* [sic]).

Lecanium cerasifex Fitch, 1857, Trans. N.Y. St. Agric. Soc. 16(1856): 368; Richards, 1958, Can. Entomol. 90(5): 308.

Parthenolecanium corni (Bouché): Borchsenius, 1957, Akad. Nauk Zool. Inst. (n.s. 66) 9: 356.

Lecanium corni Bouché, 1844, Stettin. Entomol. Z. 5: 298.

Lecanium coryli of Sulc, 1908, Entomol. Mon. Mag. 44: 36; Richards 1958, Can. Entomol. 90(5): 306.

Parthenolecanium fletcheri (Cockerell): Borchsenius, 1957, Akad. Nauk Zool. Inst. (n.s. 66) 9: 370.

Lecanium fletcheri Cockerell, 1893, Can. Entomol. 25: 221.

Parthenolecanium persicae (Fabricius): Borchsenius, 1957, Akad. Nauk Zool. Inst. (n.s. 66) 9: 350.

Chermes persicae Fabricius, 1776, Genera Insect. p. 304.

Lecanium persicae: Comstock, 1883, In Cornell Univ. Agric. Exp. Stn. Dept. Entomol. Rep. 2 (1882–83): 134.

Parthenolecanium pruinatum (Coquillett), NEW COMBINATION

Lecanium pruinatum Coquillett, 1891, Insect Life 3: 383.

Parthenolecanium putmani (Phillips): Boratynski and Davies, 1971, Biol. J. Linn. Soc. 3(1): 58 (*P. putnami* [sic]).

Lecanium putmani Phillips, 1965, Can. Entomol. 97(3): 234.

Parthenolecanium quercifex (Fitch), NEW COMBINATION

Lecanium quercifex Fitch, 1859, Trans. N.Y. St. Agric. Soc. 18 (1858): 805.

The species listed for *Parthenolecanium* have appeared in recent North American literature (Richards, 1958; Phillips, 1965; Williams and Kosztarab, 1972; Johnson and Lyon, 1976). Except for *P. persicae*, the Nearctic species are similar morphologically and species such as *P. cerasifex*, *P. corni*, *P. putmani*, and *P. quercifex* can not be differentiated morphologically with any satisfaction. A thorough study of the genus is necessary to clarify the status of most of the Nearctic species.

Sphaerolecanium Sulc

1908, Entomol. Mon. Mag. 44: 36. Type-species: *Coccus prunastri* Fonscolombe, 1834, by original designation and monotypy.

Sphaerolecanium prunastri (Fonscolombe): Sulc, 1908, Entomol. Mon. Mag. 44: 36.

Coccus prunastri Fonscolombe, 1834, Ann. Soc. Entomol. Fr. 3: 211.

Lecanium prunastri: Signoret, 1873, Ann. Soc. Entomol. Fr. (5) 3: 423.

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